

AMENDMENTS TO THE CLAIMS

Presented below is a complete set of claims with current status indicators.

1 – 48 (canceled)

49. (previously presented) An apparatus for passively monitoring physiology of a patient, the apparatus comprising:

at least two sensors, each comprising a piezoelectric film, for sensing physiological signals from the patient and environmental noise from an environment around the patient, wherein at least one sensor is disposed along a patient supporting surface for coupling with the patient so as to sense the physiological signals and at least one sensor comprises an environmental sensor for sensing the environmental noise external to the patient;

a converter communicating with the at least two sensors for converting the physiological signals and environmental noise into digital signals;

a processor communicating with the converter for isolating physiological digital signals from the digital signals by comparing the digital signals between the at least two sensors to provide physiological data; and

a monitor communicating with the processor for displaying the physiological data in real-time,

wherein a first sensor is disposed at a first location along the patient supporting surface and a second sensor is disposed at a second location along the patient supporting surface, and wherein the processor determines a pulse-wave velocity in response to a physiological signal time difference between the first sensor and the second sensor.

50. (previously presented) An apparatus as in claim 49, wherein the processor calculates blood pressure data in response to the pulse-wave velocity.

51. (currently amended) ~~A method~~ An apparatus as in claim 49, further comprising converting the pulse-wave velocity into systolic and diastolic blood pressure data and displaying the blood pressure data.

52. (canceled)

53. (previously presented) A method for passively monitoring physiology of a patient, the method comprising:

coupling a first piezoelectric sensor with the patient, the first sensor disposed along a patient supporting surface;

placing a second piezoelectric sensor in a location for sensing environmental noise from an environment around the patient;

engaging a third sensor with the patient, at a location remote from the first sensor;

sensing physiological signals and environmental noise with the first sensor and environmental noise with the second sensor;

converting the physiological signals and environmental noise into physiological and environmental digital signals;

isolating the physiological digital signals from the environmental digital signals by subtracting environmental signals sensed by the second sensor from the signals sensed by the first sensor;

displaying the physiological digital signals; and

measuring a pulse-wave travel time between the first sensor and the third sensor.

54. (previously presented) A method as in claim 53, further comprising converting the pulse-wave travel time into systolic and diastolic blood pressure data and displaying the blood pressure data.

55. (canceled)

56. (previously presented) A method for passively monitoring physiology of a patient, the method comprising:

engaging a first piezoelectric sensor with the patient by coupling the patient with a patient supporting surface including the first sensor;

engaging a second piezoelectric sensor in a location for sensing environmental noise but not physiological signals from the patient;

engaging a third piezoelectric sensor with the patient, at a location remote from the first sensor;

sensing physiological signals and environmental noise with the first and third sensors and environmental noise with the second sensor;

isolating the physiological signals from the environmental noise by subtracting environmental noise sensed by the second sensor from the signals sensed by the first and third sensors;

comparing the physiological signals and environmental noise from the first sensor with the physiological signals and environmental noise from the third sensor to determine locations of the first and third sensors on the patient; and

displaying the physiological digital signals.

57 – 72 (canceled)

73. (previously presented) A passive physiological monitoring apparatus for monitoring physiology of a patient, the apparatus comprising:

plural sensors for sensing data by placing at least one of the plural sensors in a patient supporting surface for coupling with the patient and at least one of the plural sensors in a position for sensing ambient noise without physiological signals, each of the plural sensors comprising a piezoelectric film comprising polyvinylidene fluoride (PVDF), wherein the plural sensors comprise a pair of sensors for sensing the sensed data from the patient and for separately sensing the ambient noise from an environment around the patient, and wherein the plural sensors are configured to measure pulse-wave velocity at plural locations on the patient;

a converter communicating with each of the plural sensors for converting the sensed data and the sensed ambient noise into signals;

a computing device communicating with the converter for receiving and computing the signals and for outputting computed data; and

instrumentation communicating with the computing device for real-time interaction with the device and for display of the computed data.

74. (previously presented) A passive physiological monitoring apparatus for monitoring physiology of a patient, the apparatus comprising:

plural sensors for sensing data by placing at least one of the plural sensors in a patient supporting surface for coupling with the patient and at least one of the plural sensors in a position for sensing ambient noise without physiological signals, each of the plural sensors comprising a piezoelectric film comprising polyvinylidene fluoride (PVDF), wherein the plural sensors comprise a pair of sensors for sensing the sensed data from the patient and for separately sensing the ambient noise from an environment around the patient, and wherein the plural sensors are configured to measure pulse-wave travel time at plural locations on the patient;

a converter communicating with each of the plural sensors for converting the sensed data and the sensed ambient noise into signals;

a computing device communicating with the converter for receiving and computing the signals and for outputting computed data; and

instrumentation communicating with the computing device for real-time interaction with the device and for display of the computed data.

75. (previously presented) A method for passively monitoring physiology of a patient, the method comprising:

coupling a first piezoelectric sensor with the patient, the first sensor disposed along a patient supporting surface;

placing a second piezoelectric sensor in a location for sensing environmental noise from an environment around the patient;

coupling a third sensor with the patient, at a location remote from the first sensor;

sensing physiological signals and environmental noise with the first sensor and environmental noise with the second sensor;

converting the physiological signals and environmental noise into physiological and environmental digital signals;

isolating the physiological digital signals from the environmental digital signals by subtracting environmental signals sensed by the second sensor from the signals sensed by the first sensor;

displaying the physiological digital signals; and

measuring a pulse-wave velocity with the first and third sensors.